

DETAILED ACTION

1. Your application to the Patent and Trademark Office has been reassigned to a different examiner. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Bo Peng, Art Unit 1648.
2. This Office action is in response to the amendments filed on April 28, and May 15, 2010. Claims 1-67, 82-104, 115-120, 123-130, 132 and 133 have been cancelled. Claims 68-81, 105-114, 121, 122, 131, 134 and 135 are pending.
3. Since the nucleic acid sequence of SEQ ID NO: 15 of Claim 68 is directed to an allowable product, the prior withdrawn sequences of SEQ ID NOs: 1 and 2, which share the substantially same sequence as the elected SEQ ID NO:15, are rejoined and fully examined for their patentability. The restriction between SEQ ID NOs: 1, 2 and 15 in the restriction requirement as set forth in the Office action dated March 16, 2009, is hereby withdrawn. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 USC 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP 804.01.

Interview with Applicants' Representative

4. In the interest of compact prosecution, the examiner conducted interviews with attorney

Leena Karttunen on August 12, and August 13, 2010, to put the claims in allowable condition.

The detailed interview summary is attached to this Office action for record.

Specification

5. **(Prior objection-withdrawn)** The objection to the specification for containing an embedded hyperlink and/or other form of browser-executable code, **is withdrawn** in view of the amendment to the specification.

Claim Rejections - 35 USC 112, second paragraph

6. The following is a quotation of the second paragraph of 35 USC 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. **(Prior rejection-withdrawn)** The rejection of Claims 68-73, 75, 77, 79-81, 105-114, 121, 122 and 131 under 35 USC 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, **is withdrawn** in view of the amendment to Claim 1. Rejection of Claims 129 and 130 **is moot** in view of the cancellation of the claims.

Claim Rejections - 35 USC 112, first paragraph

8. **(Prior rejection-moot)** The rejection of Claims 129 and 130 under 35 USC 112, first paragraph, as failing to comply with the enablement requirement, **is moot** in view of the cancellation of the claims.

Claim Rejections - 35 USC 102

9. (**Prior rejection-withdrawn**) The rejection of Claims 68, 69, 71, 73, 75, 77, 80, 81, 105, 107-109, 111, 113, 121, 122 and 131 under 35 USC 102(e) as being anticipated by Rota *et al.* (US 7,220,852 B1, effectively filed 25 April 2003), **is withdrawn** in view of Applicants' Declaration under 37 CFR 1.131, filed on April 28, 2010, and May 17, 2010. The declaration contains exhibits A, B, and C, which relate to activities of the inventors prior to April 23, 2003, and are said to show conception and reduction to practice of the complete genome sequence of SARS-CoV Tor2 isolate prior to April 23, 2003 (see Exhibit B). The declaration states that Applicants continued to work diligently in this area, until filing of our provisional application. Thus, the Declaration is sufficient to overcome the rejection of Claims 68, 69, 71, 73, 75, 77, 80, 81, 105, 107-109, 111, 113, 121, 122 and 131 under 35 USC 102(e) as being anticipated by Rota *et al.* The rejection of Claims 70, 72, 77, 79, 106, 110, 112 and 114 **is moot** in view of the cancellation of the claims in the Examiner's amendment in Para 14 below.

10. (**Prior rejection-withdrawn**) The rejection of Claims 68, 69, 80, 81, 111, 113, 121 and 122 under 35 USC §102(e) as being anticipated by Peiris *et al.* (US 7,547,512 B2), **is withdrawn** in view of Applicant's declaration under 37 CFR 1.131, filed on April 28, 2010, and May 17, 2010. The Declaration is sufficient overcome the rejection for the same reason as set forth in Para 9 above. The rejection of Claims 70, 72, 79, 110, 112 and 114 **is moot** in view of the cancellation of the claims in the Examiner's amendment in Para 14 below.

11. (**Prior rejection-withdrawn**) The rejection of Claims 68, 69, 73, 79-81, 110-113 and

121 under 35 USC 102(a), as being anticipated by Poutanen *et al.* (published online on 31 March 2003), **is withdrawn** in view of the amendment to the claims. The claims have been amended to being drawn to a nucleic acids comprising SEQ ID NO: 15 (a full length genome of Tor2). Poutanen does not teach the full length of SEQ ID NO: 15. The rejection is therefore withdrawn. The rejection of Claims 70 and 72 is moot in view of the cancellation of the claims in the Examiner's amendment in Para 14 below.

EXAMINER'S AMENDMENT

12. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

13. Authorization for this Examiner's Amendment was given in a telephone interview with attorney Leena Karttunen on August 13, 2010.

14. Please amend claims as set forth below:

- 1-67. (CANCELED)
- 68. An isolated SARS virus nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 2 and 15. ~~of SEQ ID NO:15.~~
- 69. The molecule of claim 68, wherein said molecule is selected from the group consisting of genomic RNA, ~~or~~ DNA, cDNA, synthetic DNA and, ~~or~~ mRNA.
- 70-72. (CANCELED)
- 73. (Previously presented) The molecule of claim 68, wherein said molecule comprises a s2m motif.
- 74. (CANCELED)
- 75. The molecule of claim 68, wherein said molecule comprises a leader sequence.

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76. (CANCELED)

77. (Previously presented) The molecule of claim 68, wherein said molecule comprises a transcriptional regulatory sequence.

78. (CANCELED)

79. (CANCELED)

80. The molecule of claim 68, wherein said molecule encodes a polyprotein.

81. The molecule of claim 68, wherein said molecule encodes a polypeptide.

82-104.(CANCELED)

105. A vector comprising the nucleic acid molecule of claim 68.

106. (CANCELED)

107. (CANCELED)

108. An isolated host cell comprising the vector of claim 105.

109. The host cell of claim 108, wherein said cell is selected from the group consisting of a mammalian cell, a yeast, a bacterium, and a nematode cell.

110-113. (CANCELED)

114. (CANCELED)

115-120. (CANCELED)

121. An isolated nucleic acid molecule comprising a sequence complementary to the entire sequence of SEQ ID NOs: 1, 2 or 15. a SARS virus nucleotide sequence having SEQ ID NO: 15.

122. A kit for detecting the presence of a SARS virus ~~nucleic acid molecule having SEQ ID NO: 15 or polypeptide encoded by SEQ ID NO: 15~~ in a sample, wherein said kit comprises the isolated SARS virus nucleic acid molecule of Claim 68 or 121. comprising a reagent selected from the group consisting of a SARS virus nucleic acid molecule having SEQ ID NO: 15 and an antibody that specifically binds a SARS virus polypeptide encoded by SEQ ID NO: 15.

123-130. (CANCELED)

131. A microarray comprising a plurality of elements, wherein the microarray comprises the nucleic acid of claims 68 or 121. each element comprises one or more distinct nucleic acid or amino acid sequences, and wherein the sequences are selected from a SARS virus

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~~a nucleic acid molecule having SEQ ID NO: 15 or polypeptide encoded by SEQ ID NO: 15, or a antibody that specifically binds a SARS virus nucleic acid molecule having SEQ ID NO: 15 or polypeptide encoded by SEQ ID NO: 15.~~

132-133. (Cancelled)

134. A pharmaceutical composition comprising the nucleic acid of claims 68 or 121. SEQ ID NO: 15.

135. (CANCELED)

15. Accordingly, Claims 68, 69, 73, 75, 77, 80, 81, 105, 108, 109, 121, 122, 131 and 134 are pending and are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bo Peng, Ph.D. whose telephone number is 571-272-5542. The examiner can normally be reached on Tu-F, 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Zachariah Lucas can be reached on 571-272-0905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/BO PENG/
Primary Examiner, Art Unit 1648